

**DREDGING JINKS CREEK FOR AN
ISLAND TO MAINLAND LINK?**

**IS JINKS CREEK REALLY A NON
PRIMARY NURSERY AREA?**

Why is the PNA Designation of Jinks Creek Important?

**In North Carolina dredging in
primary nursery areas is
prohibited. Marine Fisheries
Commission minutes of
8/10/77**



What are Primary Nursery Areas?

In 1977, the MFC defined and designated Primary Nursery Areas in rule. Nursery areas are defined in 15A NCAC 03I .0101 4(f) as “Areas that for reasons such as food, cover, bottom type, salinity, temperature, and other factors, young finfish and crustaceans spend the major portion of their initial growing season. Primary nursery areas are those areas in the estuarine system where initial post-larval development takes place. These are areas where populations are uniformly early juveniles.”

In North Carolina there are over 80,000 acres of PNAs



Why are Primary Nursery Areas in Important?

**These fragile estuarine areas
support the growth and
development of the vast
majority of the State's
important fisheries species**

blue crab

shrimp

flounder

croaker

spot

**Blue crab and shrimp are
respectively the first and
second most valuable fisheries
in North Carolina**

Provide for:

**protection and
foraging
opportunities**



Why is it Important to Protection Primary Nursery Areas/

**Failure to protect these areas
could result in recruitment
bottleneck to multiple
fisheries**

**By degrading or dredging of
these areas the production of
commercially harvested
species will decline or cease
to exist**

**Marine Fisheries Commission
states that these areas need
to be maintained as much as
possible in the natural state**



Criteria for PNA Designation

Sampling for a minimum of three years

Sampling difference times of the year
shrimp-5-6 weeks
blue crab and
finfish-6 or more
months

Species diversity

Compare to similar areas nearby to see if notable differences in terms of species abundance, size, distribution and diversity

Bottom type

clay
silt coarseness
detritus

Depth usually less than 6 feet



Where are Primary Nurseries Located in South Brunswick County?

Primary nursery areas are in the marshes from Shallotte Inlet to NC/SC line except for Jinks Creek



Should Jinks Creek Be Part of the Primary Nursery System?

Jinks Creek connects the Atlantic Ocean to the Intracoastal Waterway

Jinks Creek provides the water and nutrients for the fisheries that resident in the PNAs

Jinks Creek is the highway for the residents of the PNAs

Jinks Creek was designated on 12/01/63 as a shellfish area and a high quality water area which all PNAs are designated



Why is Jinks Creek Designated as a Non Primary Nursery Area?

**Talked with a scientist who
participated in the 1971
Jinks Creek study**

**Project was underfunded
and not enough samples
analyzed to make the study
statistically valid.**



Freedom Of Information Act Request

On Fri, Dec 30, 2016 at 11:11 AM,
Richard Hilderman
<richardhilderman@gmail.com>
wrote:

Good Morning Angela,

Jinks Creek borders the west end of the Sunset Beach Island. It is my understanding Marine Fisheries gave Jinks Creek a non-PNA designation sometime in the 1970s. Via the Freedom of Information Act I am requesting all the scientific documents, data, etc that Marine Fisheries used to designate Jinks Creek as a non-PNA. I would also like copies of all

Division of Marine Fisheries
documents (internal/external)
regarding this designation.

Thanks

Richard Hilderman, Ph.D.



Response to My Freedom of Information Act Request

**Response came from Patricia Smith
who is the Public Information
Officer for the Division of Marine
Fisheries:**

**Jinks Creek study was for 1 year
(1971) over a half century ago**

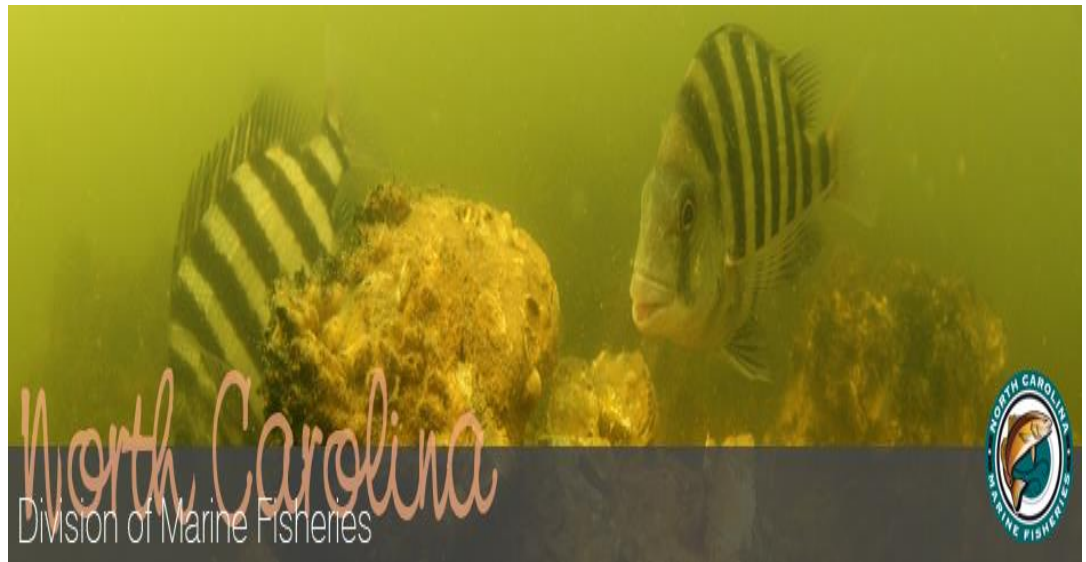
Data was incomplete

**Suspect data was incomplete
because the study was for 1 year
instead of 3**

**No reports were written pertaining
to the Jinks Creek PNA study**

Data was raw

**Suspect data was raw because of
no written reports**



Marine Fisheries Commission Minutes

Pat Smith informed me that the CMF approved the PNAs in 1977.

I reviewed CMF minutes from 7/18/74 to 11/27/78

I could find no discussions pertaining to either PNA or non-PNA designations

All I could find were maps designating PNAs throughout the NC coast. 2/16/77 minutes

Jinks Creek was not on the list.

Suspect because it was only a 1 year study and PNA designation requires a 3 year study.

Stated PNAs could be expanded any time. 8/10/77 minutes

Suspect the reason for this is the climate and habitats are changing along with the development of new technology



Example of 1971 Jinks Creek Data

Clearly data is raw and without written reports it is impossible to determine whether Jinks Creek is a PNA or non-PNA

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Requested a Meeting with Marine Fisheries Scientist for Them to Explain the Data and Justify the Jinks Creek PNA Designation

- Mr. Hilderman,
-
- I promised to get back with you on this request this week.
-
- I have spoken with Division of Marine Fisheries staff, and they do not believe they have anything to add to the information that has already been sent to you regarding Jinks Creek. Current staff did not participate in the primary nursery area sampling and designations in Brunswick County in the 1970s, and are, therefore, not familiar enough with the data to analyze it for you.
-
- While North Carolina already has many measures in place to protect fishery habitat, including nursery area designations, fishery habitat protection is an evolving science, and there is ongoing work in this area. In recent years, staff has concentrated efforts on gathering data and designating strategic habitat areas through modern ecological techniques under the Coastal Habitat Protection Plan.
-
- Patricia
-
-
-
- Patricia Smith
- Public Information Officer
- Division of Marine Fisheries
- North Carolina Department of Environmental Quality

- Good Morning Pat,
 -
 - Since the marine fisheries scientists only have the data you sent me, I can understand why they would not want to meet with me because they can't justify the non-PNA designation of Jinks Creek using this data.
- What I find important and encouraging is your statement in the third paragraph of your last email. You state that marine fisheries scientists using modern ecological technology under the Coastal Habitat Plan have generated new data in regards to PNAs. I am assuming this means the scientists have new data regarding the Jinks Creek designation. If so, I would like copies of the data specific for Jinks Creek along with a written explanation for its designation. Better yet, if possible, I would like to discuss with the appropriate scientists their findings.
- Richard Hilderman, Ph.D.
Sent from my iPhone

IS JINKS CREEK REALLY A NON PRIMARY NURSERY AREA?

Answer: We don't know



Next Question

Should a new PNA study be performed prior to approval to dredge Jinks Creek?

Answer: An analogy

You have been diagnosed with colon cancer

You have two doctors to choose your treatment

The first doctor will use the technology, knowledge and procedure developed in 1971

The second doctor will use the technology, knowledge and procedure developed in 2017

Which doctor will you choose?

If we sincerely want to protect our environment the answer should be the same for using data to determine Jinks Creek PNA designation



QUESTIONS OR COMMENTS

Richard Hilderman, Ph.D.
doggenome@gmail.com

